Site Inspection of Potential Perfluorinated Compound Release Areas
Field Variance Memorandum #5 – Field Conditions Preventing Collection of Groundwater and Soil Samples

Date: 26 June 2018

To: Catherine Jerrard (AFCEC)

From: Aerostar SES LLC

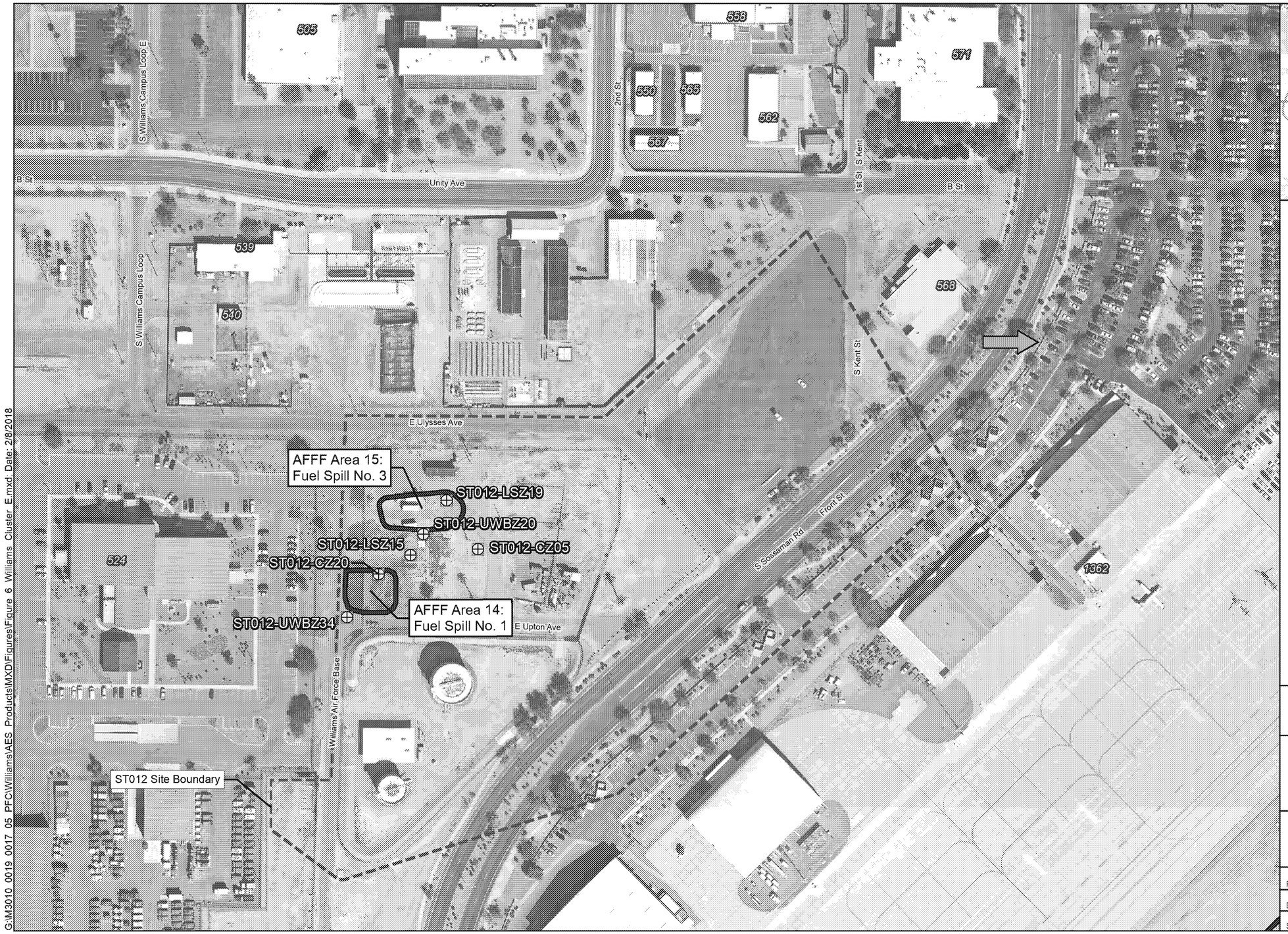
Subject: Field Conditions Preventing Collection of Groundwater Sample in Cluster E and Soil Samples in Cluster C, Former Williams Air Force Base Mesa, Arizona

Field Variance Memorandum (Memo) #5 has been prepared as a variance to Final Site Inspection of Potential Perfluorinated Compound Release Areas at Multiple BRAC Bases, Installation-Specific Uniform Federal Policy Quality Assurance Project Plan Addendum, Former Williams Air Force Base, Mesa, Arizona (Aerostar SES LLC, 2018) to document the field conditions preventing the collection of a groundwater sample from Cluster E and soil samples in Cluster C. The purpose of sampling at these locations is to determine if Aqueous Film Forming Foam (AFFF) containing per-and polyfluoroalkyl substances (PFAS) was released to the environment in Cluster E, which includes Fuel Spill No. 1 (AFFF Area 14) and Fuel Spill No. 3 (AFFF Area 15) and in the location of Cluster C, in the vicinity of AFFF Area 10: Landfill (see attached Figures 6 and 4 from the QAPP, respectively).

For Cluster E, six existing groundwater wells were proposed for sampling using Hydrasleeves, which were deployed on March 8, 2018. Hydrasleeves were retrieved and groundwater successfully collected at five of the six locations on March 23, 2018. However, a groundwater sample could not be collected at ST012-LSZ19 (Figure 6) because the Hydrasleeve failed. At this location, a groundwater temperature of 188°F was measured at the time of sampling, which exceeds the limit of the Hydrasleeve. It was determined that the water temperature was still elevated from the ST012 Steam Enhanced Extraction treatment. The elevated temperature also exceeds the limit of equipment that could be used for traditional groundwater sampling (i.e., pumps, tubing, and bailers). Therefore, a groundwater sample cannot be collected at this location.

For Cluster C, soil samples were proposed to be collected from 0-2 feet (ft) below ground surface (bgs) and 5 to 7 ft bgs in shallow hand auger boring WILPSB008, located at the downstream end of the drainage channel south of landfill LF004 (Figure 4). However, during the time of the field investigation (March through June 2018), the drainage channel was filled with water from agricultural activities being conducted off-site, east of the former base boundary. Thererfore, the soil samples cannot be collected from this location.

Although field conditions prevented a groundwater sample from being collected in Cluster E and two soil samples from being collected in Cluster C, sufficient data was successfully obtained from the remaining proposed locations to allow the project objectives to be met.



Legend

- Existing Well to be Sampled
- General Groundwater Flow Direction
- AFFF Area Boundary
- Installation Boundary
- ST012 Site Boundary

N

0 100 200

Feet

Former Williams AFB

Figure 6
AFFF Investigative Cluster E:
Areas 14 and 15
Proposed Sample Locations

Aerostar SES LLC

Figure_6_Williams_Cluster_E.mxd

Drawn: B Owens | Date: 2/8/2018

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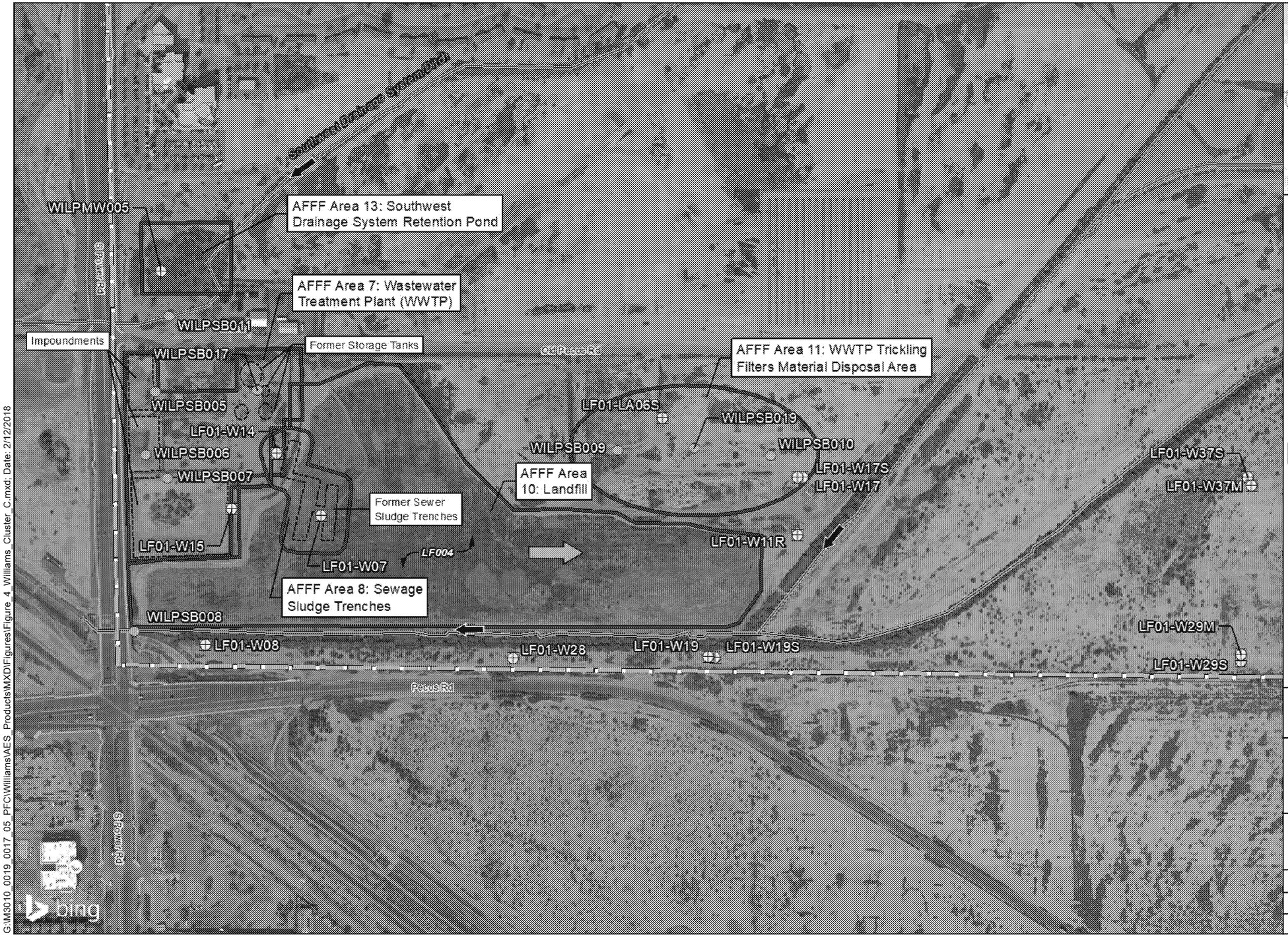

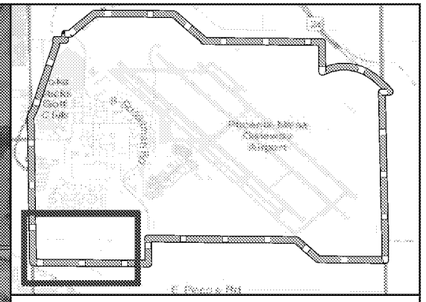

Legend

- Existing Well to be Sampled
- General Groundwater Flow Direction
- Surface Water Flow Direction
- Proposed Monitoring Well and Soil Boring
- Proposed Soil Boring
- Impoundment
- sludge_trenches
- AFFF Area Boundary
- Installation Boundary
- Surface Drainage Feature

Note:
The location of each proposed boring will be evaluated for access and potential obstructions prior to performing the field investigation. Sampling locations will be adjusted accordingly.

N

0 200 400 600

Feet

Former Williams AFB

Figure 4
AFFF Investigative Cluster C:
Areas 7, 8, 10, 11, and 13
Proposed Sample Locations

Aerostar SES LLC

Figure_4_Williams_Cluster_C.mxd

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